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TELEPHONY

THE JOURNAL OF THE TELEPHONE INDUSTRY

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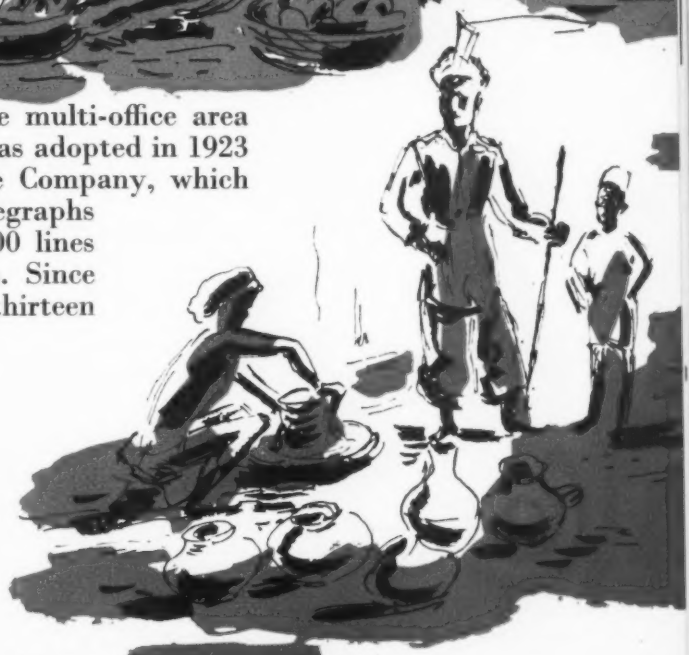
TROWGER telecommunications

The Automatic Telephone network installed in the multi-office area of Bombay is the largest in India. The Strowger System was adopted in 1923 when equipment was supplied to the Bombay Telephone Company, which organisation has now been absorbed by the Posts and Telegraphs Department of the Indian Government. A total of 11,000 lines was installed in Bombay Central and Gell Street Exchanges. Since then the equipment has been considerably extended and thirteen satellite and sub-satellite exchanges have been added, the total number of lines installed now exceeding 28,000. The Strowger automatic telephone equipment at Bombay has been designed to work in conjunction with the Strowger automatic equipment at Karachi. This consists of a main exchange, Karachi Central and three satellite exchanges, Cantonment, Gardens and Minora Island, with a total of 2,700 lines.



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Bombay — The Gateway to In... (Photo: A...ghtins Ltd.)

FLASHES AND PLUGS

THE NOSE KNOWS. A robber bound Hugh Wohlers of Los Angeles, Calif., with shoelaces in his shoe store then took $60 from the safe.

Mr. Wohlers said he managed to knock a telephone on the floor, dialed "operator" with his nose, called for help.

Police freed him.

• • •

IT WAS BUSY. When Gilbert Haehrbass of Milwaukee, Wis., tried to call his father on the telephone he got a busy signal for about 45 minutes. The operator thinks he'd still be trying if she hadn't tipped him off he was calling his own number.

• • •

VALUABLE LOOT. Two Tulsa, Okla., grocery stores were minus about $1,100 recently—plus their telephones.

Investigating Officers Bill Robbins and Jim Steele said two fast-moving men robbed the stores within 20 minutes. One yielded between $600 and $800, the other about $400.

In both cases the officers reported, the men pulled the telephones from the wall—and left with them.

• • •

HELLO. The customary telephone greeting evolved in this way, according to Frank Colby, in his "Take My Word For It" appearing in the *Saturday Powpow*. He says it evolved from "holla," a cry intended to attract attention. As a greeting, it was unknown prior to 1880.

• • •

"ROSE" TO OCCASION. Six dusty ledgers piled up by a duty sergeant in a Glasgow, Scotland, police station aided diminutive 72-year-old Mrs. William Deatcher to answer a 3,000 miles overseas telephone call from her son Joe in New York City, who hadn't seen her in 21 years. The woman, who had never used a telephone before, "rose" to the occasion nobly, standing on the books to reach the telephone instrument and exchange greetings with her son and members of his family in New York.

• • •

ONE-ARMED ROBBER. Like a slot machine were two Los Angeles, Calif., exchanges recently. They wouldn't return any money. The reason, it seemed, was that central office relays controlling coin returns had failed, and while many had "out of order" signs, others kept right on collecting.

After repairs were made, however, it was jackpot! All the money was released at once and anyone around at the moment played "finders keepers."

• • •

GOLDFISH EASE FEARS. Elsie Harris and Ina Robbins, who operate the Central Iowa Telephone Co.'s Manchester exchange on alternate nights, have for years experienced the fear of being alone at night while on duty.

That condition was righted this week.

Two goldfish have been placed in a bowl in the exchange.

TELEPHONY

The Journal of the Telephone Industry

March 20, 1948

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LEROY A. WILSON

—the New Bell Captain

By FRANCIS X. WELCH
TELEPHONY'S Washington Editor

This writer went up last week to visit the new head man of the American Telephone & Telegraph Co. And he came away musing about a paradox. Here's the paradox. Maybe you'll muse about it too.

This twentieth century of ours has been called an age of specialization. How ofter have we all been assured that the Jack-of-all-trades is the master of none? And that the way to get ahead is to learn to do one thing better than anybody else!

Yet, if we stop to check over the background of men who occupy the top spots of our great corporations, we see very few of these super-specialists. True, the super-specialist, or one-track mind personality, is a very necessary and important part of any modern business organization. Such experts invariably reach high places of authority, salary, and reputation. And rightly so, as long as they occupy their specialized fields of endeavor.

But when it comes to taking over the top spot—the "skipper stop" as they call it in the Navy—it really is an interesting commentary on the virtue of versatility to note how often these leading organizations turn to the "triple-threat" or all-around capable man. There is no need to list names or point fingers. It is a demonstrable fact that company after company, with the blue chip rating in the financial district, have as presidents men who decided early in life to learn how to play more than one position on the ball team, how to double in brass and generally get around to see how the other fellow plays his cards.

Call this versatility, extroversion, or just plain curiosity, the fact remains that the typical big-time executive today is the man who has tried to make a specialty of versatility. That's the paradox. And it makes sense, too, when you figure it out.

Isn't it precisely *because* of our modern trend towards specialization that the need for the balancing factor—the common denominator, the fellow who can see the picture from all angles—becomes all the more important? Viewed in this light, the gift of successful corporation management in reality is an exercise in the "art of synthesis"—to use the highbrow phrase. Well, whatever it is, that is what the A.T.&T. appears to have ordered for its peak post of presidency.

Leroy Augustus Wilson, who has been called upon to fill this order, is the first A.T.&T. president to be born in the twentieth century. Birth date: 1901. Place: Terre Haute, Ind.

LEROY A. WILSON

At the age of 12, young Wilson knew from his research of Horatio Alger works that there is almost an iron-bound rule about starting out on a successful American businessman's career. You have to begin as a newsboy. Lee took over a paper route for the *Terre Haute Tribune* in 1913. But having once taken it over, he hated to let go of it even when beckoned by more promising pocket money jobs. He compromised this conflict thriftily by holding on to the paper route for seven years, during which time he had nearly worked his way through college and was getting ready to go to work for the Indiana Bell Telephone Co. He maintained this perennial newsboy record, in Tom Sawyer fashion, by leasing out the job to other boys whenever he was temporarily called away to one of his other part-time occupations.

And there were so many of these other jobs that one wonders how young Wilson ever managed to *go* to school, much less graduate from Rose Polytechnical Institute with honors as a member in the honorary engineering fraternity, Tau Beta Pi, the equivalent of Phi Beta Kappa in liberal arts colleges.

It was in 1915, that Lee Wilson was introduced to the dramatic arts in an undramatic way. His father and his uncle bought the Swan Theater—one of the first nickelodeon movies in Terre Haute. Lee took tickets at the door, cranked by hand the projector, and collected and shipped the films at the express office. Eventually he even graduated to the piano, furnishing incidental music for the interminable chases of cattle rustlers by the U. S. Cavalry, etc. Musically inclined, he literally doubled in brass by taking up the trumpet and joining a dance orchestra where he could make himself a couple of dollars on a Saturday night. He seemed to have found out that all work and no play makes jack!

But Wilson also developed his own strong tendency towards non-commercial, social, and cultural activity. He agreed to become leader of a bedraggled Boy Scout troop of five boys. Within a year he snapped it up to full championship status with a waiting list. And like other things he had tackled, he hated to let go of it. For years he was an active scout leader. He is still keenly interested in the scout movement. He became trumpet soloist at the Maple Avenue Methodist Church in Terre Haute; the same church in which Art Neff, who later pitched for the Giants, sang tenor in the choir.

By 1918, young Wilson was doing

such semi-professional odd jobs as part-time surveying for a coal company, bossing a gang of Gandy-dancers for the Pennsylvania Railroad, and assisting the county highway and city waterworks authorities. His first telephone industry job was a part-time affair; and it was with an Independent company at that. In the summer of 1919, the Citizens Telephone Co., which serves Terre Haute, was engaged in introducing a change in the method of ringing, and Lee spent several weeks installing new instruments and changing over old ones on subscribers' premises. This occupation kept him from idleness between spells of shoveling ore, surveying coal mines, and building railroads.

Lee Wilson's final decision to join the telephone industry for the long pull was a considered one. He had a number of choices—electrical manufacturing, civic and railroad engineering. All beckoned in the form of firm offers. The city of Terre Haute offered him the chief engineering post of a sewer project.

Everybody was saying at that time that the young automobile industry was the business with a future. But Wilson wanted to join an industry with a present as well as a future plus a well stabilized past. He instinctively gravitated towards a large organization where there would be plenty of competition to challenge his mettle, where there would be lots of new people to meet and work with on big undertakings.

So, he reported as traffic clerk to the Indiana Bell Telephone Co. in June, 1922, less than 48 hours after he had graduated from Rose Polytechnical Institute. Thus the future head of A. T. & T. took up the tradition of which the Bell system is justly proud. Like Walter S. Gifford and a host of other Bell executives, he began in a modest capacity at a modest salary and grew up with the business. For seven years he worked in the Indiana Bell traffic department, rising first to traffic chief in Muncie and then to district traffic superintendent in Indianapolis. Incidentally, the lady employes of the telephone industry will doubtless be interested in the fact that Wilson doubly honored this Bell tradition of developing from within the system by selecting as his life partner a former member of the Indiana Bell traffic department. This was Miss Blanche Willhide of Marion, Ind., whom he married in 1928, three years after the bride had left telephone work to attend Marion College.

The subsequent years of Mr. Wilson's career are fairly well known to many active telephone industry men and women in both the Bell and Independent fields. This was because Lee Wilson was still the go-getter, the fellow who liked to get out, meet people, talk shop, swap jokes and generally behave like a rising, popular telephone official with pride and confidence in his industry and its future.

The New York headquarters soon noticed Wilson, as it usually does spot promising material. In 1929, he was transferred to the Department of Operations and Engineering of the A. T. & T. in New York. His talents were soon shifted to engineering, first in the traffic division, then in dial equipment and in related fields. In 1939 he moved over to the commercial division, where he was first placed in charge of telephone directories, then made a rate engineer. In 1942, not long after Pearl Harbor day, he was made head of the O&E department's commercial division.

There came Wilson's chance to "double in brass" with a vengeance. In 1944 he was promoted to a vice-presidency of the A. T. & T. To do what? Guess traffic and you'd be wrong. Guess engineering and you'd still be wrong. Vice-president Lee Wilson turned up at this point as a financial and investment relations expert. He was assigned to study the revenue needs of the Bell System and to promote understanding of the whole subject by telephone users, employes, and the public at large. His success at this won him recognition not only throughout the Bell System, but also in financial and investment circles.

In the volatile, unsteady, and downright "sticky" money markets which have characterized the post-World War II months to date, Wilson ably supervised the planning, packaging, timing and other important features of Bell System securities running into hundreds of millions of dollars.

It is not difficult to see why the A. T. & T. board of directors turned, in picking a successor for Walter S. Gifford, to one who has demonstrated a skill and ability to breast the tricky tides and cross currents of present day financing. The need for additional investment to finance Bell's thumping big postwar plant expansion program, plus the need for additional revenue to stabilize system earnings and investor confidence, easily constitutes the most serious and important responsibility of the A. T. & T. management today and for months to come.

After all, corporate enterprise has separate phases of growth and development just as human life itself. Today the telephone industry, like so many other industries, faces a combination of pressures. But Bell's main problem seems to be in the financial department, which has always been pretty strong, thanks to traditional conservative practices. Lee Wilson, as the versatile executive who topped off earlier star performances in other fields with a super job at the fiscal controls, was a natural to take over the A. T. & T. helm with so many financial breakers ahead for every industry.

So much for the Wilson success story. But what about this Bell tradition of up-grading exclusively from within the organization? As an employe morale builder, it has been compared with Napoleon's famous remark about each soldier carrying a field marshal's baton in his own knapsack. But does it tend to make the organization "ingrown," all opinions stereotyped and stuffy? Would the admission of a little fresh air of outside competition once in a while be a good change?

Arthur W. Page, former A. T. & T. vice president in charge of public relations, covered this point in his book "The Bell Telephone System" when he stated:

"There is probably more severe, perhaps more intelligent competition arising from the comparative figures of offices, districts, divisions, areas and companies in the Bell System than there is in most competitive industries. This internal competition in the Bell System is not at all confined to the final balance sheet. It covers pretty much everything by which both the quality of the service and the financial results can be judged. And it differs from the practices of competitive business also in the fact that there is no secrecy. Whatever is accomplished anywhere in the system is known all over the system, and the methods of the accomplishment explained in detail. A man who comes up through an organization in which his work can be fairly accurately measured in comparison with that of men in similar jobs all over the country, ought to be competent. This internal competition ought to produce as much progress as the competitive system elsewhere and give management as good or better judgment on which to base promotions."

As to general policy matters, President Wilson firmly believes in the basic soundness of the celebrated "Statement of Policy" for the Bell Telephone System laid down in 1927 by his predecessor, Walter S. Gifford. Mr. Gifford summed up the system's responsibility as a three-fold duty to treat fairly, the public, the employes, and the investors.

President Wilson is naturally a bit hesitant about discussing policy issues since he has only been at the chief executive's desk a matter of days. But one does sense from his observations that he is disposed to continue to carry out ideas which should be familiar enough to the many friends and associates who know him as plain Lee Wilson in Indiana and New York.

(Continued on page 38)

STORY OF A TYPICAL INDEPENDENT

By CHARLES M. MEISTER
TELEPHONY's Florida Correspondent

WAY down in the middle of Florida a couple who started a telephone company with $60, to which man and wife both added years of 24-hour-day work, now are directing an expansion program on which $359,500 will be spent this year.

Mrs. C. H. Galloway, who acted as day operator while her husband erected cypress poles and took care of lines during the first years, recently turned the first shovel of ground for the new building in Winter Park, into which will go equipment to give the dial system to that cultural center, home of Rollins College.

Boys she raised up in the business now are officers of the Winter Park Telephone Co., incorporated in 1921, when total assets amounted to $30,000.

"We get a lot of fun out of it," her husband, president of the corporation, of which she is treasurer, said in recounting the history of their struggle for this magazine.

Mr. Galloway admitted that for a time things were pretty rugged:

"We didn't eat much, we didn't sleep much, we didn't wear much. There are a lot of people still doing the same thing, but they don't come to town much.

"I was so skinny until I looked like a telephone pole. I never weighed over 135 pounds until the boys started to help in the business. Now the insurance people say I have a normal weight."

Plain stick-to-it-iveness motivated growth of the family business, rather than dreams of corporate grandeur, its head said, adding that "Those were the days (early 1900's) when you didn't think of the future, you just did what you had to do, with your hands and heads."

Mr. Galloway's account of how the company grew ran like this:

Born in a grocery store in Timmonsville, S. C., he was taken as a boy to Maitland, a village outside Winter Park, where his father ran another store.

Around the turn of the century, business was at the bottom of a depression, a freeze had ruined oranges, basic business of Central Florida, and opportunity seemed lacking for Mr. Galloway, then 19.

He had learned telegraphy at a nearby railroad station, and he went to Texas to work for a railroad at Galveston. As night operator he worked a 12-hour shift, and when the day operator fell ill he took that job over too, sleeping on the desk as opportunity offered.

Once the youth was napping at the wrong time, two trains collided—and "this shows how circumstances can promote you—out of one corporation into working for another."

Later Mr. Galloway learned telephone technique while working for a Texas oil company which built its own line. Mrs. Galloway, Lena, was the niece of the owner of a hotel in which he stayed.

After some eight years in Texas, the young man received word from his father, B. A. Galloway, that one of Florida's booms was on again, and he needed help. The younger man took a 30-day leave, went back to Maitland, and never again left Florida.

One day the man in the freight depot said a switchboard and 10 telephones were available for purchase, and the $60 was paid for these.

Wires were strung to the homes of "10 of the store's best customers." It took six months to get all telephones in use, although no charge was made for installation.

Residents did not particularly desire telephones, and "We had to sell cooks on the idea."

The Winter Park line was established because the only physician then in town saw need of a telephone. Another early customer in Winter Park was the late W. C. Temple, for whom the temple orange was named.

In the early years Mr. Galloway took over as night operator, after working on the lines all day, while

(Continued on page 38)

C. H. GALLOWAY watches MRS. GALLOWAY break ground for the new telephone building of the Winter Park (Fla.) Telephone Co.

THE OPERATOR'S CORNER

BY
MAYME WORKMAN
TRAFFIC
EDITOR

"WHERE'S the fire, Central?" is the query that is still heard in some small and medium sized exchanges. Any switchboard operator in a small exchange can tell you what the practice of giving the location of fires does to your telephone service. An overwhelming number of these calls are occasioned by curiosity and a desire to rush to the location of the fire and see the excitement. This practice frequently hampers the work of the fire fighters.

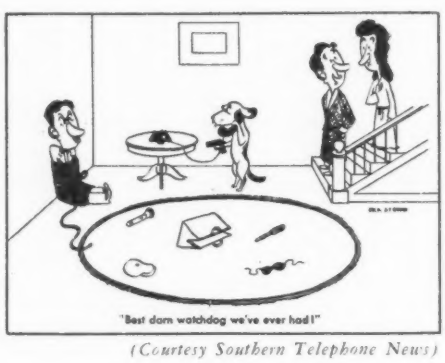
For the average person, Christmas comes but once a year, but for the operator working in an exchange having common battery supervision and where the location of fires is given, her switchboard lights up like a Christmas tree very time the fire siren is sounded. But the operator, particularly if she is working at the board alone, does not have any of the fun that goes with our usual Christmas, because she must plug away for dear life, answering signals as fast as she can. On these occasions, the Biblical saying, "The first shall be last, and the last shall be first" applies to the answering of signals appearing on the switchboard. The operator is too busy to remember which signal came in first. She just keeps pegging away, answering as many as she can and so, the first signals to appear may very well be the last to be answered.

It is not too difficult to abolish the practice of furnishing the location of fires to all subscribers requesting this information. Many telephone companies have discontinued the practice without creating unfavorable reaction on the part of their customers. The cooperation and understanding of the city officials, the fire department, and the local newspaper are essential in abolishing the practice of giving the location of fires to anyone requesting this information. After the necessary groundwork has been laid to abolish the practice, the subscribers in the exchange should be given advance notice of the discontinuance of the practice and when it is to become effective. Quoting, in part, from a newspaper item in a locality where the practice of giving the location of fires was discontinued:

"Adoption of the policy of discontinuing the practice of giving the location of fires to telephone subscribers is for the welfare and interest of not only telephone users but all residents of the community and while it may seem to work a hardship on a few individuals until they become accustomed to the new practice, it will take but a short period for them to realize its numerous advantages and give it their approval.

"Since memory runneth not to the contrary, following the blowing of the fire whistle, the custom of nearly all telephone subscribers has been to rush to the telephone and ask central for the location of the fire. Then a large per cent of those receiving the information would rush out, get in a car, and speed to the scene in hopes of beating the fire truck to the place. On numerous occasions, the streets and block in which the fire happened to be would be filled with cars of spectators before the fire truck arrived, frequently handicapping the firemen in their efforts.

"This new practice will enable members of the fire department to get the location of the fire more quickly than possible under the old system and will also eliminate some of the traffic congestion so frequent in the past immediately after the fire alarm was sounded. It may take some time for us to become accustomed to this new method and at first thought there may be some who will not approve of same. But when it is considered from all angles, we feel you, too, will agree that it is advisable and will gladly forego whatever pleasure or satisfaction you might have previously derived in being able to get the location of fires from time to time in lieu of the possibility of your sometime profiting from the new arrangement, rather than being penalized under the old antiquated system."



(Courtesy Southern Telephone News)

There may be some justification for giving so-called "special services" to subscribers in very small communities but furnishing the location of fires to all subscribers is not in this category. It is understood, of course, that this information is furnished to those who require the information such as volunteer fireman, the water and light department, the owner and occupant of the building where the fire is in progress, when possible, and owners and occupants of adjacent buildings when this action is warranted.

Traffic Questions

(1) In a tributary office, if the calling party does not tell you what town he is calling when placing a long distance call, what should you say?

(2) Should you always enter the name of the calling party on all long distance calls?

(3) What should the initial training of an operator consist of?

(4) What are alternate phrases which may be used if the called line is busy?

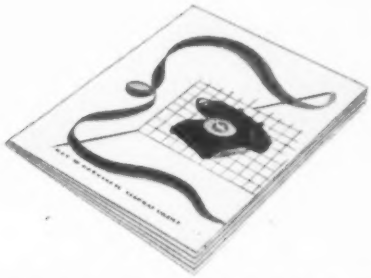
(5) When all of your "out of order" cords are in use, say in case of a storm, and you have many more lines that are out of order, how can you let your local operators know which lines are out of order?

Answers to these traffic questions are printed on page 40.

V V

Oops! Sorry

In the Mar. 13 issue of TELEPHONY, page 45, the names of the two industrious pole climbers should have been: John Hancock and Todd Sanders, five year old son of Omer Sanders, manager of the Yell County Telephone Co. of Danville, Ark. The earnest young lineman's junior size tools were fashioned locally.



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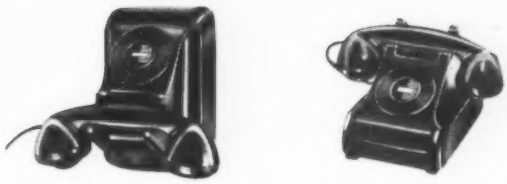

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TELEPHONE VALUATIONS AS *A Basis for Rate Making*

By DONALD C. POWER*

THE fixing of prices by governmental agencies for various types of commodities and services has become extremely common in recent years. Because of the very rapid growth of price regulation, we are apt to overlook the fact that the regulation of various types of businesses, both with respect to the type of service that must be rendered and with respect to the rates that can be charged for such services, is a very old practice.

As a matter of fact, it existed in many parts of Europe long before the colonization of the United States. Under the principles of the common law as enunciated by Lord Chief Justice Hale almost 300 years ago in his treatise, "De Portibus Maris," it was pointed out that when private property is "affected with a public interest, it ceases to be juris privati only," and it is, therefore, subject to public regulation and control for the common good.

While there are earlier illustrations of the regulation of businesses affected with a public interest in the United States, modern regulation of public utilities with respect to rates for services in this country is generally recognized as having its beginning in the 1870's with the decision in 1876 of the Supreme Court of the United States in the case of Munn *vs* Illinois, 94 U. S. 113. This case definitely established the constitutionality of legislation controlling businesses affected with a public interest, and affirmed the right of the state to regulate such businesses, including the right to fix maximum charges for services performed.

However, it was not until a number of years later (1898) that the Supreme Court of the United States, in the case of Smyth *vs* Ames, 169 U. S. 466, set forth what it considered the essential elements in the determination of the fair value of a public utility property as a basis for rate-making.

*Prominent attorney of Columbus, Ohio, and former attorney for Ohio Public Utilities Commission. Address before recent Minnesota convention.

With this decision there was initiated a long and bitter contest over the various elements entering into the determination of a fair rate, one of the most important of which involved the problem of the value of the property devoted to the public service. The right of a public utility to earn a fair return on the property devoted to public use has never been seriously challenged, but the method of fixing the value upon which the fair return was to be earned has been in a constant state of dispute and uncertainty. It is a far cry from the decision of the Supreme Court of the United States in Smyth *vs* Ames, decided in 1898, to the decision of that same tribunal in the Hope Natural Gas Case, 320 U. S. 591, decided in 1944.

In Smyth *vs* Ames, the court laid down the broad principle that rates should be sufficient to yield a reasonable return on the present worth or value of the property devoted to public use, and while the court in that decision set forth no formula for the determination of present worth, it said that both original cost and present reproduction cost less depreciation, values of stocks and bonds, probable earning power under the prescribed rates, and other factors should be considered in arriving at a conclusion.

In this decision it was admitted that original cost was an element for consideration in determining value, as was reproduction cost, and in addition certain other factors were included as evidentiary steps to the ultimate result.

However, with the passage of the years the other factors which were to be considered according to Smyth *vs* Ames were either ignored or given but little weight and while original cost was usually mentioned in arriving at fair value, reproduction cost less accrued depreciation became the controlling factor approved by the courts.

This method of evaluating public utility property withstood the attacks of its opponents for many years, and as late as the decision of the Supreme Court of the United States in United Railways *vs* West, 280 U. S. 234 (1930) it was the law that public utilities should be entitled to earn a fair return on the present fair value of their property devoted to public use and that in determining what was a fair value the present cost of reproducing the property must be given substantial, if not controlling, weight.

But gradually during the years that followed, the opponents to this method of finding value became increasingly successful in securing the sanction of the courts to the action of various regulatory commissions in arriving at fair value on the basis of aboriginal cost, that is, the cost to the person who first devoted the utility property in question to the public service, or by limiting the rate base of public utilities to the dollars originally "prudently" invested in the property by the first person devoting it to public use.

Finally, in 1944, the Supreme Court of the United States handed down its now famous decision in the Hope Natural Gas Case, 320 U. S., 591, extending to administrative commissions a large amount of discretion in determining fair value and indicating approval of any value fixed by the regulatory agency regardless of the method used in reaching such determination so long as it did not result in confiscation of the utility property being evaluated, the court holding that, "It is the result reached, not the method employed which is controlling."

It did not take very long for this somewhat cavalier attitude of the court as to the determination of fair value for rate making purposes to impress itself on at least one regulatory agency and in 1947 we witness the action of the Wisconsin commission in the Two Rivers Case (City of Two Rivers *vs* Commonwealth Telephone Co.) wherein the commission failed to make any findings of fact at all and particularly failed and indeed refused to find a rate base. In its opinion, the commission said:

"However, after careful considera-

Federal's New

6E PABX

COMPACT

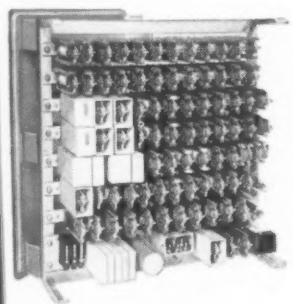
LOW COST

VERSATILE

Provides automatic intercommunication for stores, offices, small plants, and large homes

HERE'S a new Private Automatic Branch Exchange that will enable you to provide even your *smallest* customers with the finest in automatic telephone service.

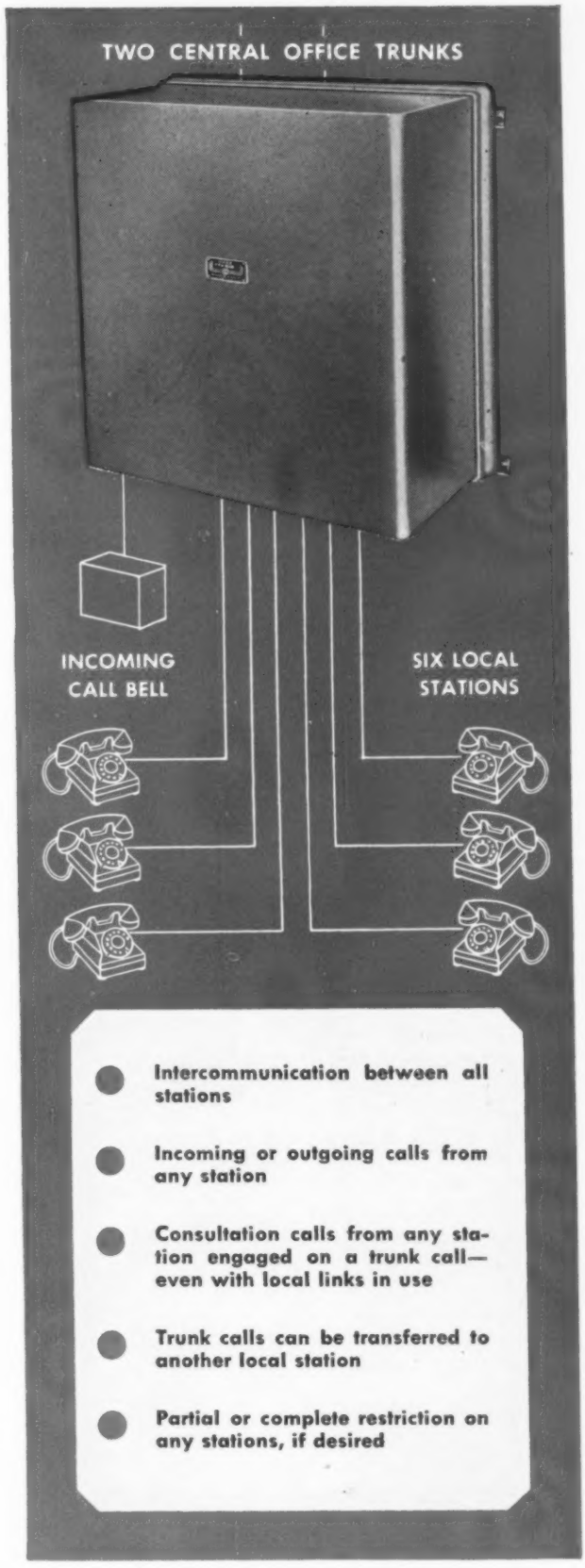
The entire exchange measures only 18" by 18" by 8", and weighs only 60 pounds. It is contained in a compact, dust-tight cabinet arranged for wall mounting. All working components are mounted on a hinged relay gate which is readily accessible from both sides.



Federal's 6E PABX, with cover removed and hinged relay gate swung open.

The 6E PABX provides two central-office trunks and six local stations—with trunk service and intercommunication for each local station. Requires only 2 wires and ground for connection to each station. Assures complete secrecy of all calls — no other station can "break-in" or "listen-in" on any other conversation. Provision for "consultation" calls permits a party engaged on a trunk call to "hold" it temporarily while calling another local station for needed information or advice.

To get the *complete* story on this new 6E PABX, write Federal today. Dept. G848.



- **Intercommunication between all stations**
- **Incoming or outgoing calls from any station**
- **Consultation calls from any station engaged on a trunk call—even with local links in use**
- **Trunk calls can be transferred to another local station**
- **Partial or complete restriction on any stations, if desired**

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tion we have concluded that reasonable rates are not properly arrived at merely by means of a formality whereby a percentage figure (which is deemed 'a reasonable rate of return') is applied to another figure deemed a rate base."

The commission further held that:

"The rates herein prescribed are estimated and intended to afford approximately an annual net profit of a determined number of dollars which we think is reasonable for the utility to enjoy from the operation of its business."

With this decision the Wisconsin commission discarded a half century of rate making and held that rates are not based on any rate whether that base be reproduction cost, aboriginal cost or any variation thereof.

Upon appeal to the Circuit Court of Dane County (Commonwealth Telephone Co., Petitioner *vs* Public Service Commission of Wisconsin, Respondent) this unique decision was reversed (Dec. 19, 1947). The court, in this case being the Honorable Alvin C. Reis, a former counsel of the Wisconsin Public Service Commission, holding that the fixing of a rate base is essential in the process of determining a fair rate. The Wisconsin commission under date of Dec. 29, 1947 appealed this decision to the Supreme Court of Wisconsin where it is now pending.

So it is at once apparent that the attitude of the courts in recent years, culminating in the decision of the Supreme Court of the United States in the Hope case, has been to increase the discretion of the regulatory agency in determining values and fixing rates upon any basis so long as actual confiscation of the utility's property does not result. The effect of this attitude is clearly illustrated in the Two Rivers decision of the Wisconsin commission.

As a result of what many students of the problem fear is a near abrogation of the judicial function of review of valuations for rate making, a most serious responsibility has been placed on the regulatory agency charged with the fixing of the prices to be charged for utility services. Since the administrative body is now, more than ever before, the final arbiter of what will constitute a fair rate the duty devolves upon it to make certain that the rates fixed by it are adequate to maintain the industry in a healthy and reasonably prosperous condition so that it can continue the splendid record for service that it has earned in the past. Rates which merely avoid confiscation surely will not attract the capital required in a dynamic and expanding industry.

That the public utility industry is still in its major growth stage is now fully recognized — certainly telephone men can testify to the present demand for service and their need for additional equipment to meet this demand. As practical operators of the business they also are keenly aware of the fact that the acquisition of this equipment requires capital and that in most cases this capital must be secured from investors.

The new capital for the expansion of the utility industry, estimated in the billions of dollars for the next few years, will be slow to enter a field in which an investor cannot obtain a fair return upon the value of his investment. This brings us back again to the question of valuations for rate making purposes. While the valuation of utility properties on the basis of original costs to the person first devoting the property to public service may tend to simplify for the administrative agency the problem of rate making, such a method can only work to the disadvantage of the present investor whose interest is in the present enterprise rather than in the cost of the property of the company which may have been bought out or merged years ago.

Valuations based on original costs are simply the application of a strict formula and result in a figure that is neither historical cost, present value, fair value or replacement cost. And, of course, if we apply the "prudent investment" theory the result is even worse, for by this doctrine if any part of the original cost or investment is found (with the wisdom that always comes after the event) to have been important, that part of the original cost will be deleted from the rate base.

Surely, the application of "aboriginal cost" or "prudent investment" methods for determining value will not persuade the present day investor that the best place for the investment of the money, on which he hopes to earn future returns, lies in utility securities. And speaking of future returns I am reminded of a statement of Charles F. Kettering, who, at 70, recently said: "I am interested only in the future because that is where I expect to spend all of my time."

We should never forget that the profit motive is the keystone of our economic system, and that the application of any price fixing policies that restrict an industry to a low and fixed rate of return on either "aboriginal cost" or "prudent investment" giving the owners no allowance for an increase in the value of their property as a result of sound planning, able management, good financing, scientific progress and satisfactory public relations, will dry up the source of capital available to the industry for development and expansion and pave the way to government ownership—a fact, not overlooked I am sure by some of our socialistic planners.

But you ask if not "aboriginal cost" or "prudent investment," what basis should be used in fixing fair value for rate making purposes and that, my friends, in the language of the streets, is the "$64 question."

In my state (Ohio) the legislature and the state supreme court have simplified the problem pretty well. The legislature has enacted a statute providing that values should be ascertained on a reproduction cost new less observed depreciation basis, and the supreme court of the state has repeatedly held that, under the Ohio law, this is the exclusive method of determining fair value. The last pronouncement on this subject and the most recent having been given in June, 1947 in what is known as The River Gas case. (City of Marietta, Ohio *vs* The Public Utilities Commission of Ohio, 148 O. S. 173.)

Of course, we in Ohio, are not unmindful of the criticisms that can be and are levied at the "reproduction" theory of evaluating utility property, particularly, where this theory contemplates an exact duplication of an existing plant as most of the judicial decisions on this subject contemplate. I think we must admit that no one in rebuilding a plant would exactly duplicate an existing plant. He would, on the other hand, try to build a plant cheaper, if possible, and certainly more efficient. In any event the cost of reproducing a plant might well mean the cost of building another plant that will do the work of the old one and compete with it. Upon this theory if, because of inflation or otherwise, the cost of reproducing the plant should increase, that higher cost of reproduction should be the basis of fixing value for rate making, and by the same token if, because of deflation, the cost of reproduction goes down there should be a reduction in the rate base accordingly.

In this connection may I call your attention to the fact that the application of the "aboriginal cost," "prudent investment," and "book cost less depreciation reserve" theories of fixing value have largely come into prominence since 1930, and during a period when prices generally have been rising. Now let us assume that in the years ahead we should encounter an extended period of deflation and falling commodity prices, are any of us so naive as to believe that future utility rates would remain at a high level because they were being computed on a rate

(Please turn to page 26)

CTION COSTS

the Strowger

TYPE 10 M.A.X.

The Strowger Type 10 M-A-X is engineered to conform to space restrictions in the average small exchange. It requires minimum floor space and fits readily into an existing switchboard room, even though the ceiling may be as low as seven feet. Where new building is planned, it permits compact, economical construction.

This compactness is achieved *without sacrificing* needed link and trunk facilities. Check the floor plans shown here; you'll find they make liberal allowance for everything you're likely to need! Be sure to make this check on any equipment you consider for your exchange. Satisfy yourself that it provides the proper ratio of links and trunks normally furnished with systems of the size you require. Check the convenient height of this Strowger M-A-X. It means easy accessibility and economical maintenance. Remember, too, the record of dependable performance which Strowger equipment has earned through more than fifty years of actual service.

The Strowger Type 10 M-A-X "out-performs" any other equipment offering comparable facilities — and requires *less space* in which to do it!

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base predicated on "aboriginal cost," "prudent investment" or "book cost less the depreciation reserve?"

You can be sure that such would not be the case, and this is particularly so when we consider that billions of dollars will be expended by the industry for additions and betterments during a period of high prices. We all know that it will be politically and economically impossible for the utility industry to maintain its rates at a level to yield a fair return on a relatively high original cost basis if price levels recede substantially. Furthermore much utility service is competitive and in a struggle for business during a period of falling prices the utilities would be compelled to reduce prices as a competitive matter regardless of what they might be entitled to earn as a matter of theory.

Surely a regulatory policy of determining value and fixing rates on a "heads I win, tails you lose" basis is not going to attract the capital that an expanding industry needs in the years ahead.

I am well aware of one of the chief criticisms of reproduction cost — namely, the time and expense involved in preparing such a valuation. However, it is entirely practical to devise simple, quick and inexpensive ways of adjusting original cost to reflect the changes that may have taken place in the price level. The application of index numbers of construction cost to previous costs, thus translating them to present price levels, has been accepted by the courts, provided such indexes specifically apply to public utility property and adequately reflect improvements in the science of construction.

What has become known as the "current cost" method of valuation has had the specific approval of the Ohio commission in at least two recent cases —The Cleveland Electric Illuminating Case and The Ohio Telephone Service Case. This method contemplates the taking of the surviving assets as shown by the books and records of the company and trending the cost of reproduction to secure a reproduction value from which value the observed depreciation is subtracted.

It should be frankly confessed that no valuation theory is perfect and while I quickly agree that reproduction cost new has its flaws, I am just as certain that every other yardstick for the determination of fair value is at least equally imperfect.

For example, from a survey of the recent decisions of the Minnesota Railroad & Warehouse Commission it appears that the basis for fixing value in this state is "book cost less depreciation reserve." While this method has the virtue of simplicity from an administration standpoint, it will not attract much more capital into the industry for new construction than "aboriginal cost." Surely it produces some weird results in so far as rate of return is concerned.

I recently had the opportunity for examining a study of some 223 Independent telephone companies located in Minnesota showing the plant value, depreciation reserve, depreciated value, number of company owned stations, value per station, net operating income and rate of return on depreciated book value for each company. You will be interested to know that the depreciated book value per station varied from a little more than $2.00 per station for a company with a plant value of $7,339, a depreciation reserve of $7,000, a depreciated book value of $339, with 153 stations, a net operating return of $1,742 and a rate of return of 513.1 per cent on depreciated book value, to a value of about $218 per station for a company with a plant value of $25,210, a depreciation reserve of $584, a depreciated value of $24,626, with 113 stations, a net operating income of $334 and a rate of return on depreciated book value of 1.3 per cent.

This study clearly reveals that by the application of the depreciated book cost theory of fixing value any similarity between the values and the rates of return earned upon properties with approximately the same number of stations was purely coincidental.

I have also examined with interest several orders issued in Minnesota during the past year on various rate applications. For example, let us take the case of Company A—serving about 950 stations. The commission in this case found the depreciated book cost of the property to be $101,162 or about $106 a station. On the basis of the new rates sought, the net income on such value was found to be 2.75 per cent. In the case of Company B, serving about 276 stations, the commission found a book cost of $26,216 or about $95 a station and that the new rates would yield a 2.8 per cent return on that base. Company C is a company serving approximately 4,440 stations and the commission found that on a book value of $379,127 or about $85 a station the new rates would earn .81 per cent on such value.

From 49 orders examined it appears that after the rates sought had been allowed by the Minnesota commission, or allowed in modified form, the rate of return computed on depreciated book cost resulted in four cases in a deficit, in five cases in a rate of less than 1 per cent, in two cases in a rate of less than 2 per cent, in seven cases in a rate of less than 3 per cent, in nine cases in a rate of less than 4 per cent, in nine cases in a rate of less than 5 per cent, in 11 cases in a rate of less than 6 per cent, and in only two cases was a rate of 6 per cent made available. And remember—these rates of return are computed on depreciated book costs which result in a per station value far below the real or actual value of the property devoted to public service.

In a period when the competition for the investor's dollar promises to become more and more severe just how many people are going to put their capital in properties showing such an earning record?

I think that it will have to be admitted that no rigid and ostensibly simple formula for the establishment of value is workable over the long run. But it seems to me that "replacement cost" if not "reproduction cost new" offers more of what is needed at the moment than any other method of determining value. It is true, as I have indicated, that such a method has its flaws but every other method has flaws as great or greater, and it has the virtue of being the one method that will attract to the industry the capital it needs as it stands on the threshold of a period of tremendous expansion.

The importance of securing capital for development must be apparent. The primary complaint of the public today with respect to the telephone industry is not rates but service. The subscriber is wholly willing to pay a good rate for good service, but he is not willing to pay high rates for poor service. Failure to provide the type of service that the subscriber demands will lead eventually to government ownership. Service requirements can only be provided with capital which must be in large measure secured from investors. Investors will not long put money in a business whose return is limited to a relatively low rate on either "aboriginal cost," "prudent investment" or "depreciated book cost," and this is especially true when the competition for the investor's dollar by other industries without such limitations is as severe as it is now becoming.

As the operator of an essential business, performing a necessary public service, the telephone industry is entitled to earn fair rates on the actual fair value of its property. It is ridiculous to think of such rates in the terms of being only sufficiently

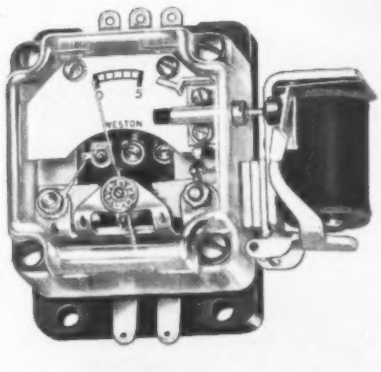
(Please turn to page 40)

This WESTON [MODEL 813] **Sensitrol Relay*

- **provides positive control on 2 microamperes**
- **handles up to 50 milliamperes at 120 volts AC or DC**
- **resists extreme shock and vibration**

Here is a sensitive relay whose unique characteristics stir the imagination... suggesting to design engineers vast possibilities for *new* product development, and for simplification and improvement of existing products. To assist in their proper application, consult our representatives, or write... WESTON Electrical Instrument Corporation, 617 Frelinghuysen Ave., Newark 5, New Jersey.

**SENSITROL—A registered trade-mark designating the contact-making instruments and relays, as manufactured exclusively by the Weston Electrical Instrument Corporation.*



Solenoid reset type (illustrated directly above) or manual reset types available.

WESTON *Instruments*

ALBANY · ATLANTA · BOSTON · BUFFALO · CHARLOTTE · CHICAGO · CINCINNATI · CLEVELAND · DALLAS · DENVER · DETROIT · JACKSONVILLE · KNOXVILLE · LITTLE ROCK · LOS ANGELES · MERIDEN · MINNEAPOLIS · NEWARK
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THE PLANT MAN'S NOTE BOOK

BY
RAY BLAIN
TECHNICAL
EDITOR

THE new Brooklyn-Battery Tunnel, which utilizes fluorescent lighting, will consume only one-seventh the annual kilowatt hours used by incandescent lights in other Manhattan vehicular tunnels for equal illumination. Two lines of fluorescent tubing along the ceiling will light the new tunnel.

• • •

The writer has never been able to understand the attitude of the average operating telephone company toward the use of intercommunicating systems in large business establishments. The operating company claims that one telephone system—theirs—is all that is required by any concern. However true this may be, the executives of practically all large business establishments today, nevertheless, have and use constantly some type of intercommunication system.

Because the operating telephone company in a certain area does not furnish this type of service and in many instances is actually hostile toward its use, the prospective customer is forced to go to some local contractor, or radio store, in order to procure a system that will meet his intercommunication requirements. Often, these sources are not qualified to install or maintain a really *good* system. Indeed, the cabling alone of most intercommunicating systems is quite a problem for anyone outside the telephone industry.

Since the attitude of the telephone company in this connection does not prevent the business concern from acquiring the system of its choice, how much better it would be if the organization desiring this service could contact the local telephone company, which is the logical establishment to install and maintain such a system, rather than sometimes inefficient makeshifts!

We predict that some day all good intercommunicating systems, both the loud speaker and the handset type, will be installed and maintained by operating telephone companies on a monthly rental basis. In the opinion of the writer, this will be a good practice for both the telephone company and the customer.

• • •

We hear considerable these days about how it is necessary to be a good sport and share our telephone line with the neighbors. And we realize fully that, due to the tremendous backlog of orders, many are fortunate to obtain a new telephone even on an overloaded party line. However, despite all the good thoughts about cooperation and sharing a party line with the neighbors, we have a feeling that there is to be an increased demand for individual lines as the calling rate increases.

The quickest way to get good neighbors to dislike each other is to place them both on a party line. This is especially true if one or both families have telephone using teen agers in the household.

Few of us enjoy sharing our car, home, lawnmower, or garden tools with our neighbors, so why our telephone line when facilities for better service become available?

• • •

It is surprising to learn the ideas many dry land telephone men entertain regarding submarine cable. These men usually have an idea that once a cable of this type is placed in service it will be trouble-free for many years. While it is true that deep ocean cable seldom causes trouble, this is not true when a cable must be placed in shallow water, near anchorages and landings made on a rough shore. This will prove true even though double wire armour shore end cables are used.

Waves and tidal action often cause movement of submarine cable over rough rocks which results in trouble. Dragging ships' anchors, also, cause serious troubles to submarine cables installed near an anchorage area. This happens even though the cable crossing may be plainly marked. Dredging operations to clear ships' channels often, also, cause cable damage.

Submarine cable river crossings, likewise, often experience considerable trouble unless the cable is placed in a dredged ditch. The shore end of a submarine ocean cable is sometimes placed in a ditch though tidal action and waves may eventually expose it to possible trouble.

This type of construction is also expensive. The clearing of submarine cable trouble also always proves an expensive operation.

• • •

The following remarks have been extracted from an interesting letter which has been received from L. B. Niemann of Staplehurst, Neb., who describes himself as the manager of a small exchange having 242 magneto telephones. Mr. Niemann states:

"Reference is had to an item in the Nov. 29, 1947 issue of TELEPHONY which appeared on page 44 describing a method of grounding line drops through a rare gas relay to prevent noise when a rural line parallels a power transmission line.

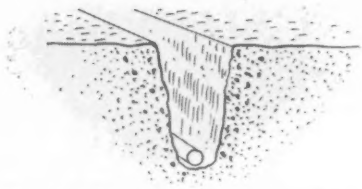
"We operate 20 rural lines that make use of the grounded drop and push button method to signal the central office. At first, we thought that the rare gas relay was the answer to a telephone man's prayer, but our experience has proved otherwise.

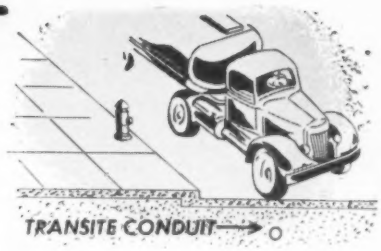
"Originally, we installed two relays on a test basis and at first these appeared entirely satisfactory. After a time, however, we had a complaint of noise on one line and after careful check detected a very small purple streak across the glass front of one of these relays. This proved to be the cause of the noise trouble. It is apparent that the grounded REA lines built up such a high potential that the current leaked across the gas relay to ground. This small leak was in no manner similar to the large flash caused by a hand generator when a subscriber called the central office. This particular trouble was experienced on a line which had eight miles of open wire beyond the end of the cable and which paralleled the 7,200 volt REA line for about five miles. The breakdown of these relays in this manner caused a loud high pitched hum.

"In the old days, the system of ringing the operator through a grounded drop had another bad effect. When the operator had a plug in the line jack, the subscriber always experienced difficulty in raising central. They never thought of ringing off and throwing

Do you know these facts about TRANSITE DUCTS?

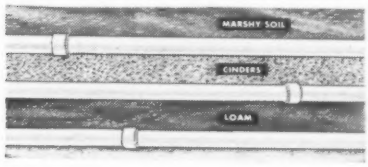
TRANSITE CONDUIT

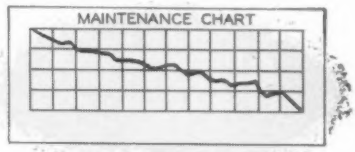




This durable duct is for use underground, or on exposed locations without a protective casing . . .

Under sustained earth loads and traffic pressure, it maintains its strength and true form . . .

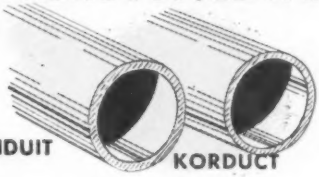


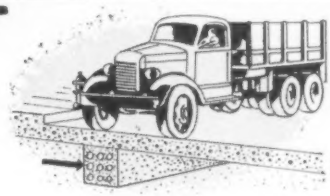


Transite Conduit effectively resists weather, smoke and fumes . . . is virtually unaffected by corrosive soils . . .

Its cost is low and, in service, it is much more economical than other materials of comparable strength and durability.

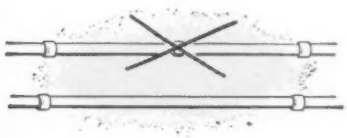
TRANSITE KORDUCT

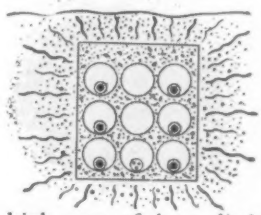




Thinner walled, lower priced than Transite Conduit, Transite Korduct is for use where an encasement is specified . . .

Because Korduct is incombustible, less concrete is required between ducts to provide the necessary degree of fire protection.





Its long lengths (10 feet) mean fewer joints, reducing the number of spacers required . . .

Its high rate of heat dissipation lowers cable operating temperatures . . . increases system capacity . . .

. . . *In addition,* both Transite Conduit and Transite Korduct have these characteristics:

1. INCOMBUSTIBLE—made of asbestos and cement, they cannot burn . . . will not contribute to the formation of dangerous smoke, fumes or gases.

2. IMMUNE TO ELECTROLYSIS—Transite Ducts are nonmetallic and inorganic . . . unaffected by electrolysis.

3. SMOOTH BORE—Making cable pulls easier, both at initial installation and after years of service.

4. EASILY INSTALLED—Lining up is fast and accurate because Transite Ducts combine lightweight, long lengths, simple assembly.

For details and specifications, write for Data Book DS-410, Johns-Manville, Box 290, New York 16, N. Y.

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Johns-Manville TRANSITE DUCTS

TRANSITE KORDUCT—for installation in concrete

TRANSITE CONDUIT—for exposed work and installation underground without a concrete encasement

the clearing out metallic drop. After some experimenting back in 1906, we finally put in a second set of high resistance clearing out drops connected to ground. This arrangement worked perfectly because when the subscriber signalled the operator and a plug was in the line jack, the grounded clearing out drop came in every time.

"However, when power lines came into the picture, we had to change this system somewhat. Double wound coils of 1,600 to 2,000 ohm resistance were bridged across the line with a center tap connected to the drop. This drop was not connected to a jack but was bridged permanently on the line. Then, when a plug is in a line jack and a subscriber rings, the pin that holds the shutter will rattle and attract the attention of the operator. We find that this method gives good supervision.

"It was found, however, that occasionally during a heavy electrical storm coils would burn out. To prevent this, the coils were replaced with a unit made up of two 2,000 ohm carbon resistors of the radio type. These resistors are bridged across the line in lieu of the regular coils and have a center tap connected through the drop to ground. This does not affect metallic ringing on the line, but the lightest kind of a ground ring kicks the drop every time."

This letter presents some interesting facts with reference to the difficulties experienced in the operation of rural lines which are in the proximity of high voltage power lines. In this connection, we should be pleased to hear from others who have had experience with rare gas relays when used to overcome power induction trouble, and when grounded ringers are connected to metallic lines. We have had numerous reports from various sections of the country to the effect that these gas relays have proved entirely satisfactory.

PLANT MAN'S QUIZ

Q. We have some cable messenger which is rusty and single strands are broken in some places although there is apparently sufficient strength to support the cable. Is it possible to wrap these broken strands in some manner so as to increase the life of the messenger?

A. Breaks of a single strand in a messenger such as you describe are often repaired by attaching a length of new messenger to the old by the use of guy clamps. It is doubtful, however, that this practice is desirable for if one strand is broken due to rust, it is entirely possible that the remaining strands are weakened to such an extent that replacement of the messenger is undesirable.

• • •

Q. How much cable will a standard tank of nitrogen gas test?

A. Oil pumped nitrogen gas used for cable testing is usually supplied in steel cylinders which contain about 15 pounds of gas at a pressure of approximately 2,000 pounds per square inch. This is equal to about 200 cubic ft. of gas at atmospheric pressure and under average conditions should charge about 15,000 ft. of full sized cable to a pressure of nine pounds per square inch.

A small 24 cubic ft. gas container is more easily transported and is intended primarily for flash testing. A filled container of this type will ordinarily prove adequate for testing four or five splices.

• • •

Q. We are planning an exchange cable distribution system and would be pleased to have your ideas as to whether aerial, buried cable or cable in conduit will prove the most economical.

A. A decision of this nature can be made only after all local conditions have been evaluated. In general, an aerial plant proves most economical wherever it can be properly used.

From the standpoint of appearance, buried cable has the same advantages over aerial plant as has cable in conduit. Where a multiple cable run is not required and the ultimate future capacity can be fairly accurately estimated, buried cable may prove just as satisfactory as cable in duct.

The cost of installation of buried cable is largely dependent upon the method of its installation. Hand trenching must be used in some cases which always proves most expensive. The cost is considerably reduced when conditions are such that machine trenching may be used.

When cable requirements cannot be forecast for the ultimate period, it is a good plan to install a multiple duct run and adequate manholes. This will most more initially, but will prove less expensive over a period of years and the cost of maintenance will be considerably reduced. Difficulties usually will be experienced when an attempt is made to add a second buried cable along the route of the first.

• • •

Q. What is the effect of high and low temperatures on the life of dry cell batteries?

A. The maximum output is obtained from dry cell batteries at a high temperature rather than at normal temperature which is 70 degrees F. This rule applies unless the time of use extends over such a long period that the shelf loss is greater than the gain due to the increased chemical activity of the cell.

When operated at low temperatures, the activity of the cell is decreased and a point may be reached where the cell is not able to deliver any current. The temperature at which this condition occurs depends upon the size and type of cell and the load resistance of the circuit.

Except for very light current drains, dry cells should be considered inoperative when frozen which is usually considered when they reach —10 degrees F. Dry cell batteries subjected to low temperatures are not affected permanently, but are returned to their full capacity when restored to normal temperatures.

• • •

Q. Will it be possible to arrange an alarm system that will indicate when trouble develops on vacant pairs in a cable?

A. This type of an alarm system is not only possible, but is often used on unattended dial systems. A relay of special design is used to close an alarm circuit. This relay is operated from battery, through the leakage of a cable pair or pairs to ground. The alarm relay may be arranged so that the accumulated leakage of a specified number of pairs will cause it to operate. The same arrangement may also be used to operate from a predetermined number of permanent line signals on the system.

In the case of an unattended exchange, the alarm bell or light is often located near the trouble desk in the main exchange. While designed primarily for use on unattended exchanges, these alarm systems can often be used to advantage in any exchange.

• • •

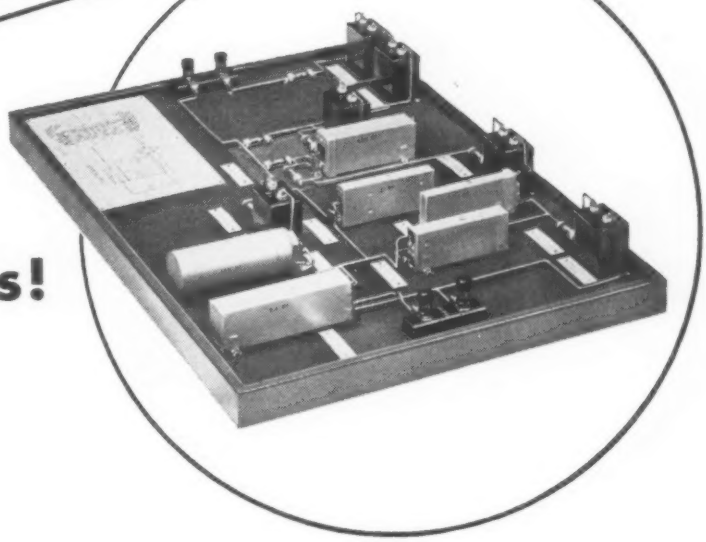
Q. Is it possible to use the loud speaker type of intercommunication set without an amplifier?

A. This arrangement has been used to a limited extent with varied degrees of success. Some amplification is generally considered necessary for the successful use of this type of communication.

Present day vacuum tubes have a long life, are not difficult to maintain so the use of amplifiers is not generally considered objectionable.

This is your telephone receiver

...and believe it or not...



so is this!

They look nothing whatever alike—they're composed of entirely different elements—but to the design engineer, they're identical twins!

The resistors, capacitors and coils on the board form what is known as an "equivalent circuit." This provides an *all-electrical* means of determining, before the first model is built, how the electrical *and mechanical* elements will react in a receiver.

The use of "equivalent circuits"—pioneered by Bell Telephone engineers some 25 years ago—has proved of great value in developing better communications equipment of many kinds. They cut development time and costs—for the effects of changes in the design of *mechanical* elements can be very quickly and inexpensively foretold by simple changes in the electrical components of the "equivalent circuit."

Add to such continuing scientific development studies at Bell Telephone Laboratories, the highly precise manufacturing methods of Western Electric—and you get the world's finest telephone equipment.

Will 1/1000th inch greater or less diaphragm thickness improve the performance of a telephone receiver? Slight changes in this "equivalent circuit" provide the answer quickly and economically.

Western Electric

TELEPHONE APPARATUS AND CABLE

COURTS and COMMISSIONS

Nebraska Continental Asks Higher Rates in 26 Towns

The Nebraska Continental Telephone Co., Columbus, has filed application with the Nebraska State Railway Commission to increase rates.

The company serves 65 cities in 24 counties through 30 exchanges and stated that it owned 14,500 telephones.

It also listed 26 towns in which the exchanges now have rates varying from $1.50 to $4.00 and requested a raise in these towns to $4.75.

At Albion where the rate is $3.75 and at Ord $4.25, the company asks increases to $5.25. At Columbus and Kearney where the rate is now $5.50 it seeks $6.25.

V V

Sustains Court's Power to Review Utility Rates

Where a court finds that commission fixed utility rates are unreasonable and confiscatory, the court has the power to enjoin the setting of any rates lower than those proposed by the utility, according to a decision rendered by the Supreme Court of Indiana, Jan. 23, in *Public Service Commission of Indiana et al. v. Indianapolis Railways, Inc.*

Indianapolis Railways, Inc., had asked the Circuit Court of Marion County to enjoin the enforcement of rates fixed by the Indiana commission and to prohibit interference with the collection of higher rates filed with it by the company. The railway company contended that the commission authorized rates were unreasonable and confiscatory and that those filed by the company as emergency rates were the lowest possible charges that could be made without jeopardizing its credit and solvency.

In reviewing the refusal of the commission to grant such emergency rates, the circuit court received additional evidence to that given at the rate hearing. The commission, having received from the court and reviewed such evidence, again refused the company proposed increase. Thereupon, the circuit court found in favor of the railway company's plea for an injunction.

The commission, in its appeal to the Indiana Supreme Court, asserted that the lower court was precluded from a consideration of the question that the commission fixed rates were both unreasonable and confiscatory if there was some evidence before the regulatory body which supported its finding. However, the supreme court stated that "this rule applies only to the sufficiency of the evidence to support the finding of the board or commission. It does not apply where the order is being questioned as unreasonable or confiscatory."

The supreme court also ruled that costs at time of construction or purchase, costs of bringing property to present state of efficiency, and reproduction costs at current prices, less depreciation, could be properly utilized by the commission and the reviewing court in determining present fair value. Evidence as to increase in labor costs occurring subsequent to commencement of review proceedings was held to be properly admissible as evidence.

V V

Gives Southern T&T 14% of Amount Requested in Alabama

An increase in intrastate toll rates amounting to 14 per cent of the total requested by the Southern Bell Telephone & Telegraph Co. was granted recently by the Alabama Public Service Commission. Increased exchange rates were refused, however.

The approved rates will give the company some $360,000 a year in new revenue in contrast to the approximate $2,500,000 which was requested, it was estimated.

The higher charges will apply only on long distance calls over distances from about 10 to 96 miles. The difference over present charges will be only five to 10 cents per call. No increases will be permitted on calls to points more than 96 miles distant.

In making its study of the records, the commission disallowed more than $800,000 in revenue which Southern Bell contended it needed but agreed that an increase of $360,000 was justified.

In Birmingham, F. M. Malone, Southern Bell's Alabama manager, said he was "disappointed and deeply concerned over the commission order."

He said it "does not provide sufficient revenue" to meet the company's present cost of operation.

"The lack of adequate revenue," he said, "will gradually handicap us in our ability to render the quality of service desired and to expand our facilities to meet the demands of the people in this state."

V V

City Grants 25-Year Franchise To Crossville, Ill., Company

A controversy over telephone service in Crossville, Ill., was terminated recently by the granting of a 25-year franchise to the Crossville (Ill.) Telephone Co.

In return for the charter, the company agreed to meet the village board's demands for improving the service and has laid plans to spend approximately $10,000 for new equipment next year.

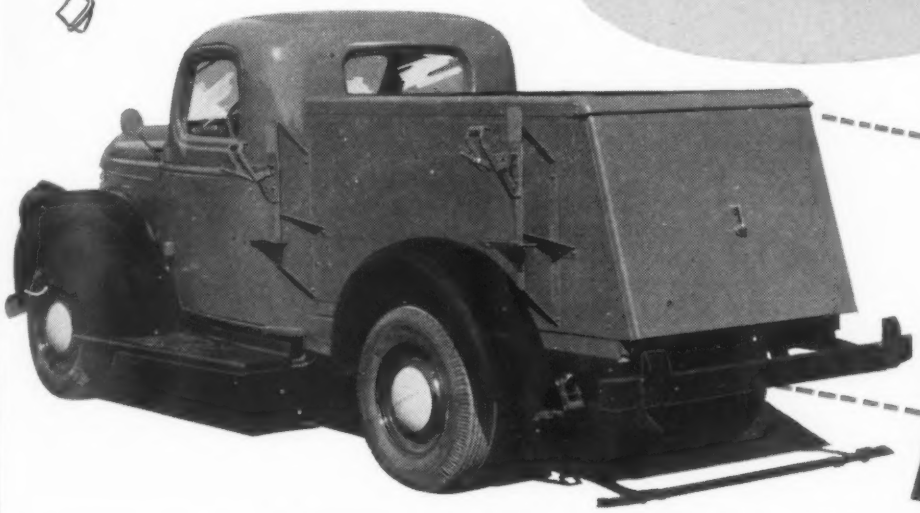
The company has operated without a franchise since Dec. 31, 1947, when the old agreement expired. The village board delayed renewing the franchise pending company assurances that service would be improved.

V V

Commission Candidates File For Nebraska April Primary

With the date of filing for the April 13th primary closed, the list of candidates for the Nebraska State Railway Commission is: Long term — John Knickrehm, present chairman, and Richard H. Larson, former member, republicans; Edward J. Lafferty and Andy Jensen, democrats. Short-term— Einar Viren, now serving by appointment to fill vacancy, Harold Plamer, H. J. Cowin and J. E. Good, republicans; Will M. Maupin, former member, and V. Howard Richelieu, democrats.

American LIU-76 TELEPHONE BODY



Special compartment with sliding tray for payout reel and spare tire carrier.

Rear view of LIU-76 shows compartments, pockets and drawers for carrying equipment.

SPECIALIZED BODY USED FOR

Installation - Maintenance - General Service

Q. What makes this American Body, LIU-76, so popular for telephone installation, maintenance and general service?

A. Utility design — a place for everything. The outside features an "S" ladder and all-around body compactness.

Ask us about the many features on this body.

Now, look inside (views at right). You find several trays (various depths and widths); material drawers with flexible compartments (movable partitions); a sliding shelf for payout reel and spare tire carrier; space for rubber goods, first aid kit, stepladder, instruments, long bits and other items.

The sliding shelf permits easy access to a fully loaded reel. When not in use, the shelf slides in place and the door (side opening) is closed and locked. Rear and side doors have special locks; trays have locks so they cannot move when truck is in motion.

Ask American about the LIU-76, or if you have other requirements, remember American specializes in all types of bodies for utilities.

GENERAL DIMENSIONS

Overall width	47 inches
Overall length	80 inches
Inside height	29½ inches
Height from chassis to top	35 inches
Weight	700 pounds

(All figures approximate)

Bodies may be purchased in prime paint or finished to your standard color. They can be mounted on your chassis at our factory or can be crated and shipped for mounting at destination.

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ACB and

Lincoln T&T Adopts Exchange Service Plan

Adoption by the Lincoln Telephone & Telegraph Co., with full approval of the Nebraska State Railway Commission, of a standard plan of dealing with the problem of added exchange service has resulted in a threat to take the matter into court by a small group of Seward County patrons, who claim the new order of things is "arbitrary, unfair and discriminatory."

The plan was put into operation under the authority of the rate order issued by the commission late in 1947. It states that if 51 per cent of the subscribers of an exchange desire extended calling privileges to another exchange, they may receive it and the exchange will be placed in the next higher rate bracket.

Merle Hale, general commercial superintendent, said that the plan was adopted to get rid of discrimination between exchanges and groups of subscribers, and that company officials feel that it is fair and equitable to all concerned. Prior to the issuance of the rate order, he said, the company had free county service in Johnson and Clay counties and many other exchanges had free service to one or more other exchanges. A great many of the exchanges had no additional service and yet paid the same rates as those which had that special privilege.

The commission said no separate treatment could be sustained. The fact that subscribers have enjoyed an advantage over other subscribers in the same system in the past, it was held, does not justify a continuation of a discriminatory practice. It was pointed out that every facility placed at the disposal of the public and every service rendered entails some expense and when such cost is not specifically paid for through toll charges the cost must necessarily fall on all subscribers, whether they use the service or not. The problem was inherited from the locally owned private companies that now form a part of the Lincoln system. The protest movement was started by representatives of the Farmers Grange at Goehner, and chambers of commerce at Seward, Milford, Beaver Crossing and Utica. At a recent meeting Robert Vogt, Jr., was named to head a committee of 10 to survey the situation in the other 21 counties served by the Lincoln company.

V V

Approves Sale

Sale of the Riga (Mich.) Farmers Telephone Co. to the Michigan Associated Telephone Co., Muskegon, was authorized by the Michigan Public Service Commission on Mar. 2.

To Continue Resistance Against Bell Increase in Mississippi

The Mississippi Public Service Commission announced recently that it will resist a rate increase sought by Southern Bell Telephone & Telegraph Co. "with all means available."

The statement followed a conference of Commission Chairman Homer Casteel with Assistant State Attorney General James Kendall to plan action against chancery court proceedings instituted by the company to prevent the commission from interfering with a rate increase (TELEPHONY, Mar. 13, p. 38).

After the commission refused to grant higher rates, the Southern Bell company secured a court injunction to prevent it from blocking the increase.

Mr. Casteel said the specific steps and plans which will be taken by the state will not be made until the state legislature acts on a bill requesting $25,000 to employ investigators to thoroughly study the company's rate structure.

V V

Permits Michigan Company to Levy Penalty on Unpaid Bills

Authorization to collect a monthly penalty of 25 cents on bills that have not been paid on or before the 20th of the month for which rendered, was granted to the Lake City (Mich.) Telephone Co. on Mar. 5 by the Michigan Public Service Commission.

In its petition the company stated that it had not been giving a discount or charging a penalty rate on its bills, and that it had to borrow money to pay its excise taxes while on its books were more than enough in delinquent accounts to pay such obligations.

V V

Brownsville Telephone Co-op Files Articles

Articles of association have been filed at Albany, Ore., for the Calapooia Co-operative Telephone Association by Herbert Waibel, Clair Kirk, Merle Splawn, C. N. Mishler and Joe Evans.

Membership fees are set at $2.50 and membership will be transferable. Purpose of the corporation is to construct telephone lines to the east of Brownsville, Ore., and Brownsville is designated as the place of business.

V V

Rate Hearing on March 16

Hearing on the rate increase application of the Wykoff (Minn.) Cooperative Rural Telephone Co. was set for Mar. 16 by the Minnesota Railroad & Warehouse Commission.

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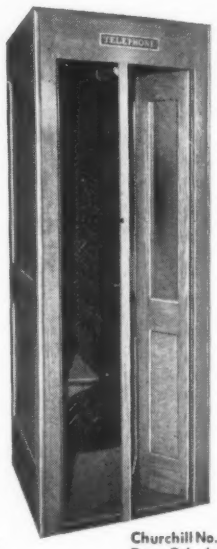
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Not only attractive—but comfort
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increase your pay station business.
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equipped with a reinforced back p
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light or medium oak in a satin finis
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electric light and automatic ele
ventilator.
Overall height is 84¾"; width, 3
depth, 30½". Shipped knocked d
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Illustrated literature available.
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CARLSON Recommends

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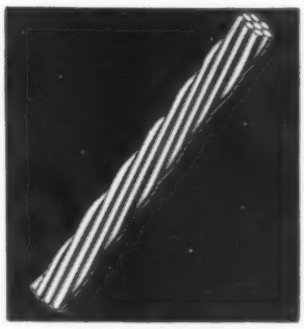
guy and messenger galvanized strand

The superior tensile properties inherent in steel are used to full advantage in *Crapo* Galvanized Strand. The tightly adherent zinc coating applied by the *Crapo* Galvanizing Process provides lasting protection against corrosion, and prolongs the life of the strand. Controlled ductility makes *Crapo* Strand easy to work and to serve. Low first cost and low yearly cost result in important economies for operating companies.

The all-round dependability of *Crapo* Galvanized Steel Strand is being demonstrated constantly by its outstanding performance in service. There is a size and grade for all practical needs.



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cook type 0 *sub-station protector*

This single circuit protector, equipped with fuses and lightning arresters, is unexcelled for either indoor or outdoor use. Special Cook-engineered features include:

1. Heavy white glazed porcelain designed to prevent surface leakage between current-carrying parts.
2. Tru-Gap high-potential dischargers that will not ground the line.
3. Phosphor bronze fuse and arrester springs, zinc hood, Everdur studs and washers. Hood is grounded when in place.
4. Choice of types and lengths of Cook Telephone Fuses.

chance pike poles

with reversible safety point

Recommended for raising telephone or power poles, and as ground braces in pole setting work. Made from Douglas or Western Fir, free from defects and lacquered. Reinforced steel collar at butt protects against splintering. Pike or ferrule available separately.

Safety point is reversible—may be inserted into ferrule to eliminate sharp projection. Replaceable when worn.

Wire lift attachment, for handling telephone and low voltage secondary conductors.

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STROMBERG Telephone CARLSON

To Buy Kansas Company

Subject to the approval of the Kansas Corporation Commission, an order was issued by Judge Robert W. Hemphill in Norton County District Court Mar. 5 authorizing the transfer of the property of the Norton County (Kan.) Co-operative Telephone Co. to the Southwestern Bell Telephone Co. It is understood that the commission will approve the transaction.

V V

Authorized to Buy Stock

Permission to purchase a majority of the capital stock (299½ shares) in the Home Telephone Co., Cottonwood, was granted to W. C. Caldwell by the Minnesota Railroad & Warehouse Commission on Mar 8. Mr. Caldwell owns and operates the Clarkfield Hazel Run Telephone Co., Clarkfield.

V V

Open Territory Declared

By a recent order of the Oklahoma Corporation Commission the area near Antioch in Garvin County has been declared "open territory" upon request of residents there. The Elmore City (Okla.) Telephone Co. does not desire to serve that territory, it was reported.

V V

Given Extension of Time

The North Carolina Utilities Commission which recently ordered the Citizens Telephone Co. of Brevard to improve its service within 15 days has granted the company an extra 30 days to comply.

V V

Camden, Mich., Company Given Higher Rates at 3 Exchanges

Permission to increase rates at its Camden, Montgomery, and Frontier Exchanges was granted to the Camden (Mich.) Rural Telephone Co. by the Michigan Public Service Commission on Mar. 4.

With the base rate areas for the three exchanges the approved increases are:

Gross Monthly Rates	*Individual Line*	*Two-Party Line*	*Four-Party Line*	*Extension Station*	*Extension Bells*
Business	$3.25	$3.25	$2.75	$1.25	$ .25
Residence	2.55	2.40	2.25	1.00	.25

Outside the base rate areas but within the exchange service area the increases are:

Gross Monthly Rates	*Individual and Limited Party Lines*	*Unlimited Party*	*Extension Station*	*Extension Bells*
Business....	(Base rates quoted above	$2.50	$1.25	$ .25
Residence...	plus line mileage)	2.10	1.00	.25

Summary of Commission Rulings and Hearings

Florida Railroad & Utilities Commission

Mar. 23: Hearing on application of Southeastern Telephone Co., Tallahassee, for permission to increase rates.

Kansas Corporation Commission

Mar. 23: Hearing on rate increase petitions of the Oketo (Kan.) Telephone Co., the Farmers Mutual Telephone Co., Wakefield, for exchanges at Bala and Buckeye; the Junction City (Kan.) Telephone Co., the Fontana (Kan.) Telephone Co., the Natoma (Kan.) Telephone Co. for exchanges at Covert, Natoma, Layton, and Waldo.

Mar. 30: Hearing on application of Macksville (Kan.) Cooperative Telephone Association for authority to increase rates.

Apr. 12: Hearings on the following rate applications: Potwin (Kan.) Mutual Telephone Co.; Galen D. Force at Circleville; the Katy Telephone Co., Elsmore; the Home (Kan.) City Telephone Co.; and the Kanorado (Kan.) Telephone Co.

Oklahoma Corporation Commission

Mar. 23: Hearing on application of the Lone Wolf chamber of commerce requesting improvement of service by the Southwestern States Telephone Co., Brownwood, Tex.

Mar. 23: Application of Milburn (Okla.) Telephone Co. for increased rates.

Mar. 24: Hearing on application of Bixby (Okla.) Telephone Co. for increased rates.

Mar. 26: Hearing on application of residents of Moore, Okla., requesting that the Southwestern States Telephone Co. of Brownwood, Tex., be requested to give adequate service.

Apr. 1: Hearing on application of B. Richardson, Oklahoma Corporation Commission engineer, for fixing boundaries of the Southwestern Bell Telephone Co. exchange now being installed at Midwest City.

Apr. 2, 13, 20, 21, 27 & 30 and May 7, 14, 18 and 28: Application of Southwestern Bell Telephone Co., for increased intrastate rates in its 146 exchanges.

June 16: Continued hearing on application of Southwestern Bell Telephone Co., Southwestern Associated Telephone Co., Lubbock, Tex., Southwestern States Telephone Co. of Brownwood, Tex., and Oklahoma Telephone Co., Broken Arrow, for continuance of rules, similar to those of expired federal regulation U-2 governing order of service installation.

Dates Not Set: Hearings on applications of H. C. Popjoy, et al., asking that certain rural area northeast of Edmond, located in territory claimed by the Spencer (Okla.) Telephone Co., be declared open territory and of the Elmer (Okla.) Telephone Co. for increased rates.
HALL

Wisconsin Public Service Commission

Mar. 16: Hearing on joint appeal of the Belmont & Pleasant View Telephone Co., Belmont, and of the Commonwealth Telephone Co., Madison, for approval of the sale of property in Argyle and Lamont by the former to the latter company and for use of the purchasing company's rates for service to acquired subscribers.

Mar. 16: Hearing on appeal of Perry Mutual Telephone Co., Blanchardville, for authority to increase rates.

V V

42 Per Cent of U. S. Farms Now Have Telephone Service

Forty-two per cent of America's farms—the highest percentage in history—now have telephone service, the American Telephone & Telegraph Co. announced recently. This estimate, based on figures available at the beginning of this year, compares with 32 per cent at the beginning of 1945.

The Bell System added 309,000 telephones in rural areas last year, bringing service to farm regions at the rate of about 1,000 additional families every working day of the year. At the beginning of 1948, there were over 2,000,000 telephones in rural territories served by the Bell companies.

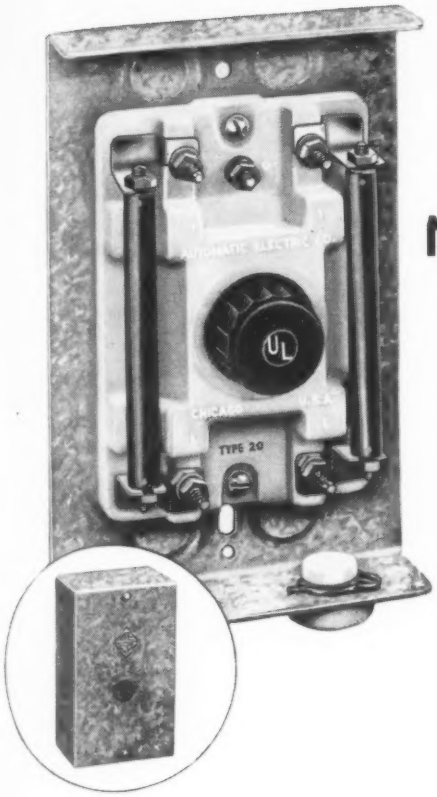
The 1947 gain brought the increase in number of rural telephones served by the Bell companies to 700,000 in a little over two years since V-J Day. This represents 70 per cent of their immediate postwar objective, announced in 1945, of adding another million rural telephones within a period then estimated to take as long as five years. This goal was set for the first phase of the long-range program, company officials said.

During the last two years, new rural lines have been built at the fastest rate in history—enough by the Bell companies alone to stretch twice around the world. During the same period, 300,000 miles of wire were strung in Bell System rural areas.

V V

L. D. Coltrane, Jr., Manager of Concord, N. C., Company

Lester D. Coltrane, Jr., Concord, N. C., has been elected secretary-treasurer and general manager of the Concord Telephone Co., succeeding his father, who died recently. Charles A. Cannon has been elected vice president. T. M. Schramm has been named vice president and assistant secretary-treasurer. W. C. Houston continues as president and Mrs. Mariam C. Schramm has been named a director of the company.



Cat. No. SB-91—With cover, for outdoor use—7 amp. fiber fuses.
Cat. No. SB-88—Without cover, for indoor use—7 amp. fiber fuses.
Other fuses available to order.

Get Complete Protection *with* AUTOMATIC ELECTRIC'S

New Type 20 Substation Protector

(Listed by Underwriters' Laboratories)

This new Automatic Electric Type 20 Substation Protector provides complete protection against every type of danger potential. Its carbon-to-carbon discharge surfaces, very accurately spaced, provide full and permanent protection at all times. The one-piece heavy porcelain base assures ample spacing between terminals, and between discharge blocks and fuses and terminals. Geometric centering of discharge blocks provides greater mechanical strength and greatest effective dielectric strength. The removable hot-dip galvanized cover has ¾" clearance—a further safeguard against high potentials.

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Originators and Developers of the Strowger Step-by-Step "Director" for Register-Sender-Translator Operation . . . Machine Switching Automatic Dial Systems
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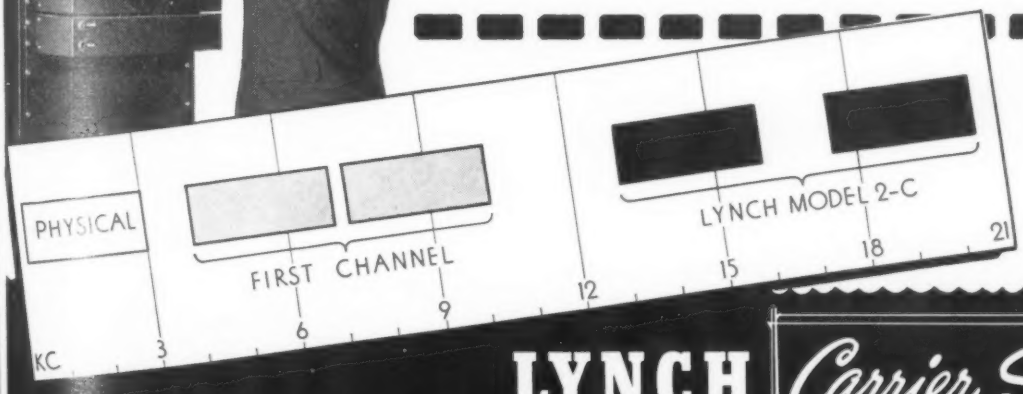
How to add a second Carrier Channel

to your existing single channel

Need an additional voice channel? It's an easy and economical job to install the Lynch Model 2-C Carrier Circuit. Model 2-C is adaptable to any type first channel and is properly filtered to make cross-talk unimportant. Operates 150 to 200 miles over copper wire. Lynch Repeaters may be added to extend this distance almost indefinitely. Minimum upkeep . . . each terminal contains only five standard-make tubes.



Write for interestingly low prices.

• • •

Be sure to send complete technical data of existing circuit.

Operates on standard dial or ring-down basis.

LYNCH *Carrier Systems*

3 EXTRA VOICE CHANNELS OVER ONE PAIR COPPER WIRES

F. W. LYNCH CO. • 94 Natoma Street • SAN FRANCISCO • Phone SUtter 3790

Leroy A. Wilson—New Bell Captain

(Concluded from page 14)

This writer got such an impression with particular reference to three general lines of inquiry:

First, as to Bell-Independent relations. Wilson knows from "grass-roots" experience—the importance of continuing the friendly spirit of Bell cooperation with Independent telephone companies. He appears to recognize readily that the interest of the industry as a whole is best served by the maintenance of a strong, and well balanced Independent branch. It is probably safe to say that America's "biggest little industry"—the Independent telephone companies—have no better friend in the Bell System nor one more sympathetic to their various problems, than President Wilson.

Secondly, the state and federal commissions, each operating within their respective spheres, appear to have the studied respect of the new A. T. & T. executive. Of course, it must be pointed out that cooperation is a two-way proposition. Commission regulation has its own responsibility for fair dealing. To its credit, this has been generally observed—and only rarely has it been marred by resort to unfair demagoguery. Needless to say, the new A. T. & T. head man is a keen student of commission regulation. He has indicated repeatedly his belief that it will not only work well, but that it *must* work well, to insure the successful continuation of the enterprise system in the United States.

Finally, on the future of the telephone business, President Wilson is a real "bull." His ideas of the good things in store for the industry can be summed up in that aviation business phrase for fine flying weather: "ceiling unlimited." Writing in the Bell Telephone Magazine in 1945, he said:

"The opportunity for progress is enormous. The physical means and human skill are at hand to provide far more and better telephone service than ever before. New tools and new techniques only await practical application. Bell System people know how to turn the promise into performance, and they also know from experience that the key to success is full understanding of the whole process by all concerned — not only by telephone employes, but also by the public and by government authorities responsible for regulating telephone enterprise in the public interest."

As a person, Wilson is agreeably easy to talk with. His speech is still the slow, simple, friendly conversation of the mid-westerner. He puts you at your ease so quickly that one can readily understand why he has made so many friends and always gotten along so well with others. The answer seems to be that he likes people, likes to meet them, talk to them, try to figure out what makes them tick. Wilson has a mind that will never stop learning as long as he lives. The constant desire to learn something new gives him the double charm of a humble viewpoint plus the cumulatively rich experience and wisdom gained getting along with others. Such is Leroy A. Wilson, the new "Bell Captain."

V V

Story of Typical Independent

(Concluded from page 15)

Mrs. Galloway got the children to bed and caught up on her housework.

A charter subscriber paid $1.50 for three months, then said he didn't believe he needed a telephone, since in the 90 days no one had called him and he had telephoned nobody.

"The mistake I made," Mr. Galloway says now, "was in not calling him up. We don't let that happen any more."

At first clients just asked for the person they wanted by name, but in 1913 a number directory was published, on a single sheet of paper for both towns. The Winter Park section had no listings under the letters G, I, J, L, N, O, P, Q, R, U or V. Maitland had still more blank spaces.

A boy was put in charge of the first switchboard in Winter Park. Complaints were made that he did not answer calls. Investigation showed him out in the street, playing marbles. The Galloways moved into the Winter Park exchange.

The family lived in or over the telephone exchanges until a profit of $8,000 was made on sale of a small electric light business which Mr. Galloway had built up on the side in partnership with the late James H. Hirsh. Then a separate home was purchased.

One son, B. A., is general manager and secretary of the company, another, J. K., is first vice president, and the third, C. H., Jr., is second vice president.

Of the 37 employes the company now has, Mr. Galloway said:

"I like to see the rest of the family learn different phases of the work, because if a person specializes in one thing he may find that progress has moved ahead of his job."

V V

Urges Man to Air Gas-Filled House; Operator Saves 8 Lives

A Fitchburg, Mass. telephone operator was credited recently with talking a man into saving his own life and that of seven others, including his four children, after they were overcome with gas.

The police reported that Miss Helen Whitney, 32, gave instructions to Leon J. Berube on opening up his gas-filled house and "kept after him" until he did so.

When her switchboard flashed, police said, Miss Whitney heard Berube gasp "Doctor," and then, "Gas." Continuing to hold Berube in conversation, she called police and firemen. She urged him to open all windows and doors, and when he said, "I can't make it," Miss Whitney encouraged him to try. Rescue squads found Berube had succeeded.

V V

Signal Corps Hopes to Hit Mars With Radar

Army radar experimenters don't want just the moon. They are now aiming at more distant goals.

Signal Corps technicians recently said early plans to explore the face of the moon with radar are but a step toward an eventual attempt to bounce a radar signal off some neighboring planet like Mars.

With equipment improved since the original 1946 experiment in which radar recorded signals reflected by the moon, the Signal Corps at Belmar, N. J., will seek to map the moon's surface some time this month.

Some radar technicians in Washington, D. C., think that with even further refinement in transmitters the range may be extended from the mere 238,000 miles to the moon to the millions of miles needed to contact another planet.

V V

Sign for Telephone Commercial Offices:

To install your phone,
We just ain't able—
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There ain't no cable.
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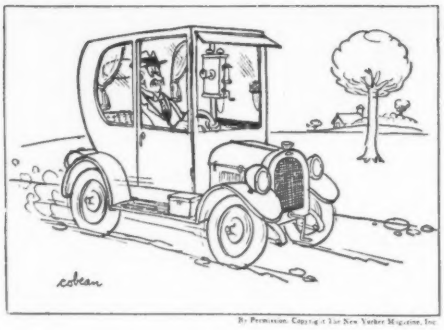
Telephone Valuations

(Concluded from page 26)

high to avoid confiscation. They must be enough to insure to the public the type of service to which it is entitled and maintain the financial health and integrity of the industry.

It seems to me that the Independent telephone industry, by and large, has been far too modest in its rate demands. With the cost of everything it buys, and the wages it pays, rising precipitously it has tried to limp along, fearful of the consequences of seeking an increase in rates. Where increases have been sought they have been in large measure inadequate. It is not too difficult to understand the industry's fears when we consider the attitude of many regulatory agencies over the past several years. But this attitude is changing. It is just as much the duty of the regulatory body to make certain that good service is furnished to the public as it is to see that only fair rates are imposed for such service. It is now becoming very



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clear that good service without adequate rates is not possible. A telephone company cannot forever operate out of its depreciation reserve nor can it continue indefinitely to defer necessary maintenance. The time is here when it must have adequate rates.

This need for additional revenue has been fully recognized by the Bell System which between Sept. 17, 1946 and Jan. 12, 1948 has sought rate increases in 42 states and the District of Columbia, involving total additional gross revenue of $206,531,000 a year. Of this amount, increases totalling $120,000,000 have been authorized or placed in effect. Surely if the great Bell System with its tremendous financial resources, and serving as it does the more profitable areas of telephone operation, has felt the pinch of rising costs, the small Independent companies must be much more severely affected.

The relatively small number of Independent companies that have sought rate adjustments is truly amazing. It seems to me that it will be economically impossible for them to delay doing so much longer. To do so can result only in disaster.

V V

Telephone System Planned For Middle East Oil Project

The General Electric Co., Ltd., London, has been given a contract to erect an elaborate telephone system in the Middle East. It will cost some £300,000.

Construction of the system will be so devised as to span the whole length of a projected new oil pipe line planned for construction during 1950 and 1951 between the Persian Gulf and a Mediterranean port about 800 miles distant, yet to be chosen. Radio will provide communication between the working parties and base camps during the building of the pipe line and mobile wireless trucks and "walkie-talkies" will be used by working parties to maintain contact during survey of some of the difficult terrain through which the pipe line will run.

A teleprinter service also will be operated between the various stations over the radio link. It also will be possible for radio communication between stations along the pipe line and aircraft flying along the route, and tankers and vessels approaching port.

Answers to Traffic Questions On Page 16

(1) Say, for example, "What place do you wish, please?"

(2) The name of the calling party should be entered if it is volunteered; also, if it is your company's practice to enter the calling party's name on all long distance calls.

(3) The initial training of an operator usually consists of:

a. Demonstrations
b. Discussions
c. Drills
d. The handling of practice calls

(4) In addition to the phrase generally used when the called line is busy, the operator may use any of the following alternate phrases:

1. "It's busy now."
2. "It's still busy."
3. "I'm sorry, it's still busy."

(5) A white signal plug is used to indicate that the line is out of order.

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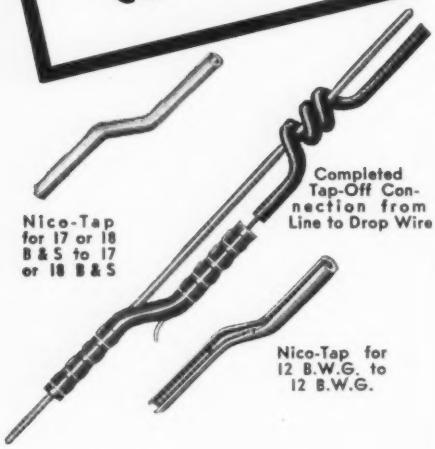

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Bohn Named Chairman; Swanson President of Home Company

At a directors' meeting on Feb. 25, immediately following the annual meeting of stockholders of the Home Telephone & Telegraph Co., Fort Wayne, Ind., Frank E. Bohn, for 20 years the president of the company, was elected chairman of the board. He now fills

FRANK E. BOHN

a top position which has been vacant in the company for some years. To succeed Mr. Bohn as president, the directors elected Emmett Swanson, who has served for 10 years as vice president and for the last year as executive vice president.

EMMETT SWANSON

Mr. Bohn is a native of Fort Wayne and has spent a long and active career in the telephone business, nearly all of which has been with the Home company.

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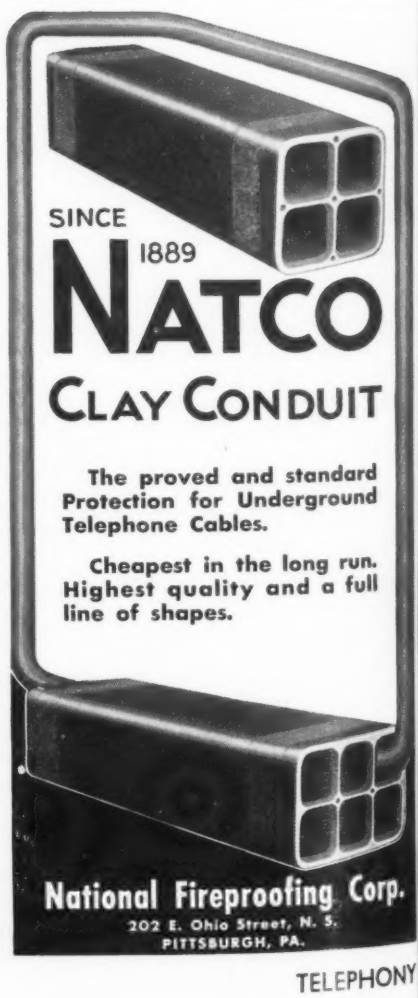

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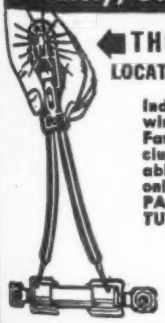

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for harmonic or coded bells. Dual purpose device which economically improves both ringing and transmission on party lines. NO MOVING PARTS. Fully guaranteed. Can be installed in a minute.

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In his report to the stockholders, Mr. Bohn told of the company's growth during the past year, in spite of material and equipment shortages and such other factors as damaging storms. The sleet and ice of January, 1947, and of this year, January, 1948, damaged the telephone company's pole lines and outside plant to the extent of one-quarter million dollars. The storm of 1948, according to Mr. Bohn, was the most severe he had ever seen in his many years in the business.

A gain of 2,745 telephones in service during 1947 was reported by Mr. Bohn, although a waiting list of some 1,600 applicants as of January of that year had grown to one of 3,600 by Dec. 31, in spite of the instruments placed in service during the year. The company now has 60,200 total telephones in service in its area.

Mr. Swanson joined the Fort Wayne company in 1938 as a vice president. Prior to that time, he had 10 years experience in the manufacturing and operating fields of the telephone industry.

Other officers were re-elected by the board at the same meeting.

V V

Booklet Issued for Wire Rope Users

The Wire Rope Institute, a national organization with a membership representing most of the country's wire rope manufacturers, recently published an attractive, two-color combination catalog and handbook for general distribution to wire rope users.

This new 119-page publication, "Wire Rope," prepared and edited by the institute's Technical Committee, contains a wealth of useful information in the selecting, buying and using of wire rope, along with data on fittings attachments, splicing, and other related subjects.

Copies are available without charge by writing to the Wire Rope Institute, 1044 Shoreham Building, Dept. 711, Washington 5, D. C.

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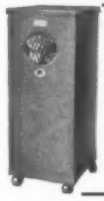

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200	Pike poles, 12 ft. long, new. Chance Mfg.	$2.75 Ea.
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6	one-half ton all steel trailers	$148
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38	Climbers, Buckingham, size 17½. Other sizes at regular prices	$3 Ea. $5.50 per pr.
88	Lineman's leather belts	$2.25 Ea.
6124	Pin Insulators	$0.16 Ea.
436	Roller cable block for installing aerial cable, single sheave	$2.75 Ea.
10	boxes, tool, wood or steel, 38"x9½"x14"	$4.50 Ea.
48	Mattox without handles	$0.55
33	Sledge, 14-lb. with handles, new	$0.90 Ea.
108	Sledge, 8-lb. with handles, new	$1.00 Ea.
19	Drill, Chicago Pneumatic, size 326-450, Model C, new	$19.50 Ea.
19	Fire Extinguisher, Model A-16, 15 lbs full charge, Mf'd by National Powder and Extinguisher Co.	$13 Ea.
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BUCKEYE TELEPHONE and SUPPLY COMPANY
COLUMBUS 6, OHIO

HANDSETS, magneto or common battery, Western Electric, Kellogg or Automatic Electric ..... $4.50 each

RECEIVERS, new capsule type complete with cord, Automatic Electric ..... $1.25 each

RINGER BOXES, common battery 1500 ohm, Automatic Electric, complete with ringer, coil, condenser and terminal strip ..... $1.25 each

RELAYS, Automatic Electric, 24 volts, switchboard, with cover ..... $1.25 each

HEAT COILS, Western Electric, $7.50 per 100.

MAIN FRAMES and parts.

VOICE FREQUENCY RINGER.

Many other items in stock at all times . . . Inquiries Invited.

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